AREA PLAN COMMISSION

OF TIPPECANOE COUNTY

20 NORTH 3RD STREET
LAFAYETTE, INDIANA 47901-1209

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SALLIE DELL FAHEY
EXECUTIVE DIRECTOR

Date: December 30, 2013

Re: RED FLAG INVESTIGATION
DES #TBD
McCormick Road
McCormick Road Reconstruction
West Lafayette, Tippecanoe County, Indiana

NARRATIVE

The project is McCormick Road between Lindberg Road and Cherry Lane. The road will be widened and reconstructed from a rural to an urban design.

SUMMARY

INFRASTRUCTURE As identified below the following items of concern were found within ½ mile:			
Religious Facilities	**N/A**	Recreational Facilities	**1**
Airports	**N/A**	Pipelines	**2**
Cemeteries	**N/A**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**8**
Schools	**N/A**	Managed Lands	**4**

One recreational facility is within ½ mile of the project – the tennis court at Blackbird Farms Apartments is approximately 500 feet to the east.

Two natural gas pipelines, both owned by Vectren, are within ½ mile of the project area. One pipeline bisects the project, requiring prior coordination with Vectren.

Eight trails are within ½ mile of the project. Currently 3 are open while 5 are in the planning stages. The Cherry Lane trail between McCormick Road and the Celery Bog is in the immediate project area and will be affected. Future extension of Cherry Lane and its trail is planned and should be considered during this project.

Four managed land areas are within ½ mile. They are the Purdue golf course, Horticultural Park woods, Celery Bog and a conservation easement, also at the Celery Bog. None are within the immediate vicinity of the road project and are likely to be unaffected.

WATER RESOURCES As identified below the following items of concern were found within ½ mile:

NWI - Points	**N/A**	NWI - Wetlands	**18**
Karst Springs	**N/A**	IDEM 303d Listed Lakes	**N/A**
Canal Structures – Historic	**N/A**	Lakes	**4**
NWI - Lines	**N/A**	Floodplain - DFIRM	**N/A**
IDEM 303d Listed Rivers and Streams (Impaired)	**N/A**	Cave Entrance Density	**N/A**
Rivers and Streams	**5**	Sinkhole Areas	**N/A**
Canal Routes - Historic	**N/A**	Sinking-Stream Basins	**N/A**

Five rivers/streams are within ½ mile. They are associated with drainage ponds or Jordan Creek. One is in the immediate project area and will require prior coordination.

Eighteen wetland areas were identified. Most were associated with drainage points or Purdue's golf course. One is in the immediate project area and will require prior coordination.

Four lakes are within ½ mile. One is a large drainage pond in Blackbird Farms apartments. One is on the south end of the Purdue golf course. The other two are from a drainage area in the Blackbird Farms subdivision. The apartment drainage pond is in the immediate project area and will require prior coordination.

MINING/MINERAL EXPLORATION As identified below the following items of concern were found within ½ mile:			
Petroleum Wells	**N/A**	Petroleum Fields	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

No mining concerns exist in the ½ radius.

HAZMAT CONCERNS As identified below the following items of concern were found within ½ mile:			
Brownfield Sites	**N/A**	Restricted Waste Sites	**N/A**
Corrective Action Sites (RCRA)	**N/A**	Septage Waste Sites	**N/A**
Confined Feeding Operations	**N/A**	Solid Waste Landfills	**N/A**
Construction Demolition Waste	**N/A**	State Cleanup Sites	**N/A**
Industrial Waste Sites (RCRA Generators)	**N/A**	Tire Waste Sites	**N/A**
Infectious/Medical Waste Sites	**N/A**	Waste Transfer Stations	**N/A**
Lagoon/Surface Impoundments	**N/A**	RCRA Waste Treatment, Storage, and Disposal Sites (TSDs)	**N/A**
Leaking Underground Storage Tanks (LUSTs)	**1**	Underground Storage Tanks	**N/A**
Manufactured Gas Plant Sites	**N/A**	Voluntary Remediation Program	**N/A**
NPDES Facilities	**N/A**	Superfund	**N/A**
NPDES Pipe Locations	**N/A**	Institutional Control Sites	**N/A**
Open Dump Sites	**N/A**		

One leaking underground storage tank is located within ½ mile of the project. The tank is located on Purdue's golf course but is likely too distant to be affected by project work.

Ecological Information

The Tippecanoe County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached. The ETR species on the state or federal registers are highlighted.

Cultural Resources

No federally or state listed historic structures or districts are located within ½ mile of the project area.

RECOMMENDATIONS

INFRASTRUCTURE: Vectren needs to be contacted regarding their pipelines in the construction area. Cherry Lane Extension and its trail will intersect the construction area and should be included in the plans.

WATER RESOURCES: Coordination with Blackbird Farms Apartments regarding the drainage pond will be needed.

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: ETR species list is attached and highlighted.

CULTURAL RESOURCES: N/A

Prepared by:
Anna Burman
Transportation GIS Specialist
Area Plan Commission of Tippecanoe County

PROJECT AREA
McCormick Road
Des. No. TBD, Rural to Urban Conversion
Tippecanoe County, Indiana

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

0.1 0.05 0 0.1 Miles

Project Area Map

Project

Half Mile Radius

This map is intended to serve as an aid in graphic representation only and was provided by INDOT.
This information is not warranted for accuracy or other purposes.

INFRASTRUCTURE
McCormick Road
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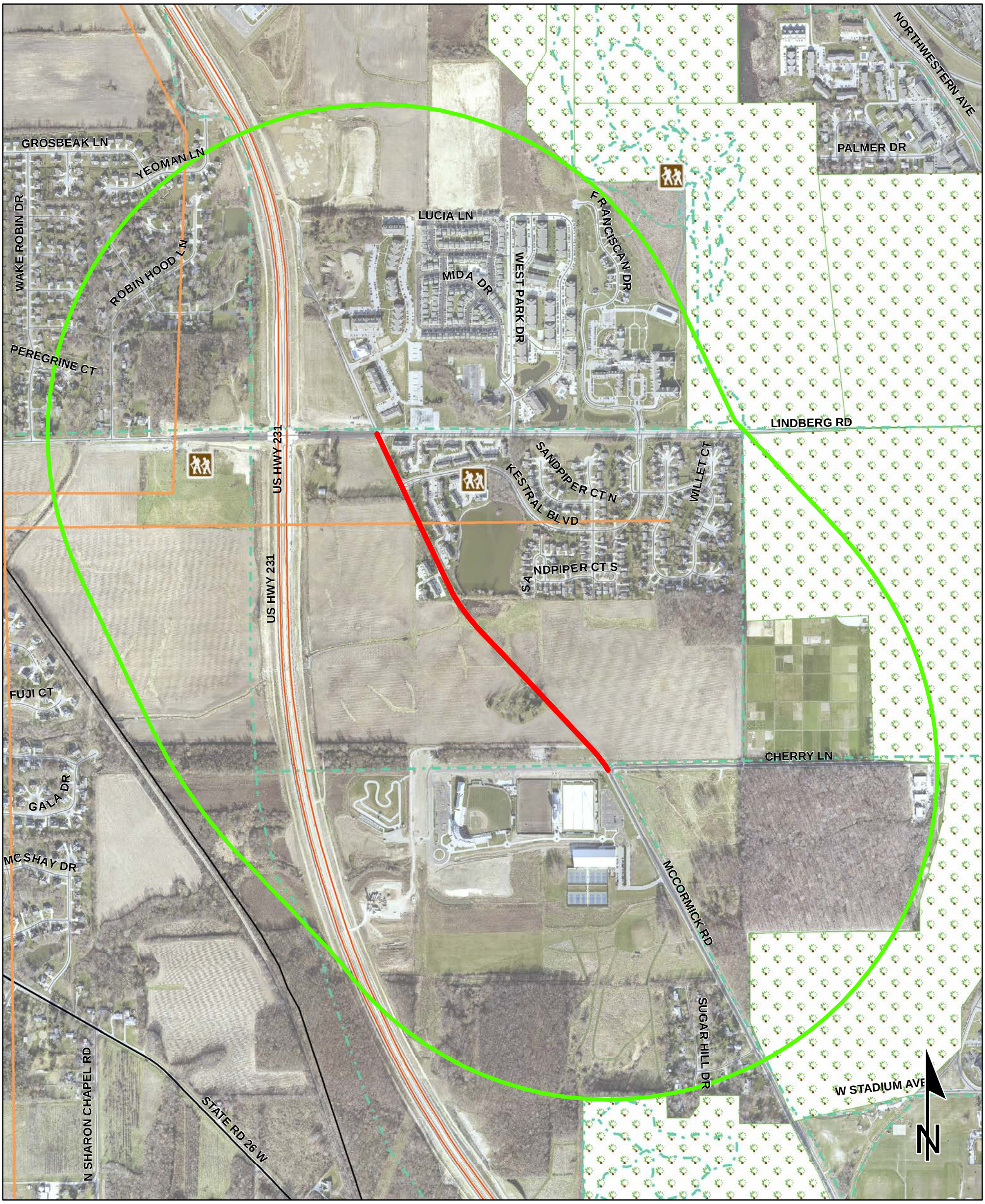
Tippecanoe County, Indiana



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Infrastructure Legend

- Religious Bldg
- Religious Bldg
- Airport
- Cemeteries
- Hospital
- School
- Recreation
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Interstate
- State Route
- US Route
- Local Road

WATER RESOURCES
McCormick Road
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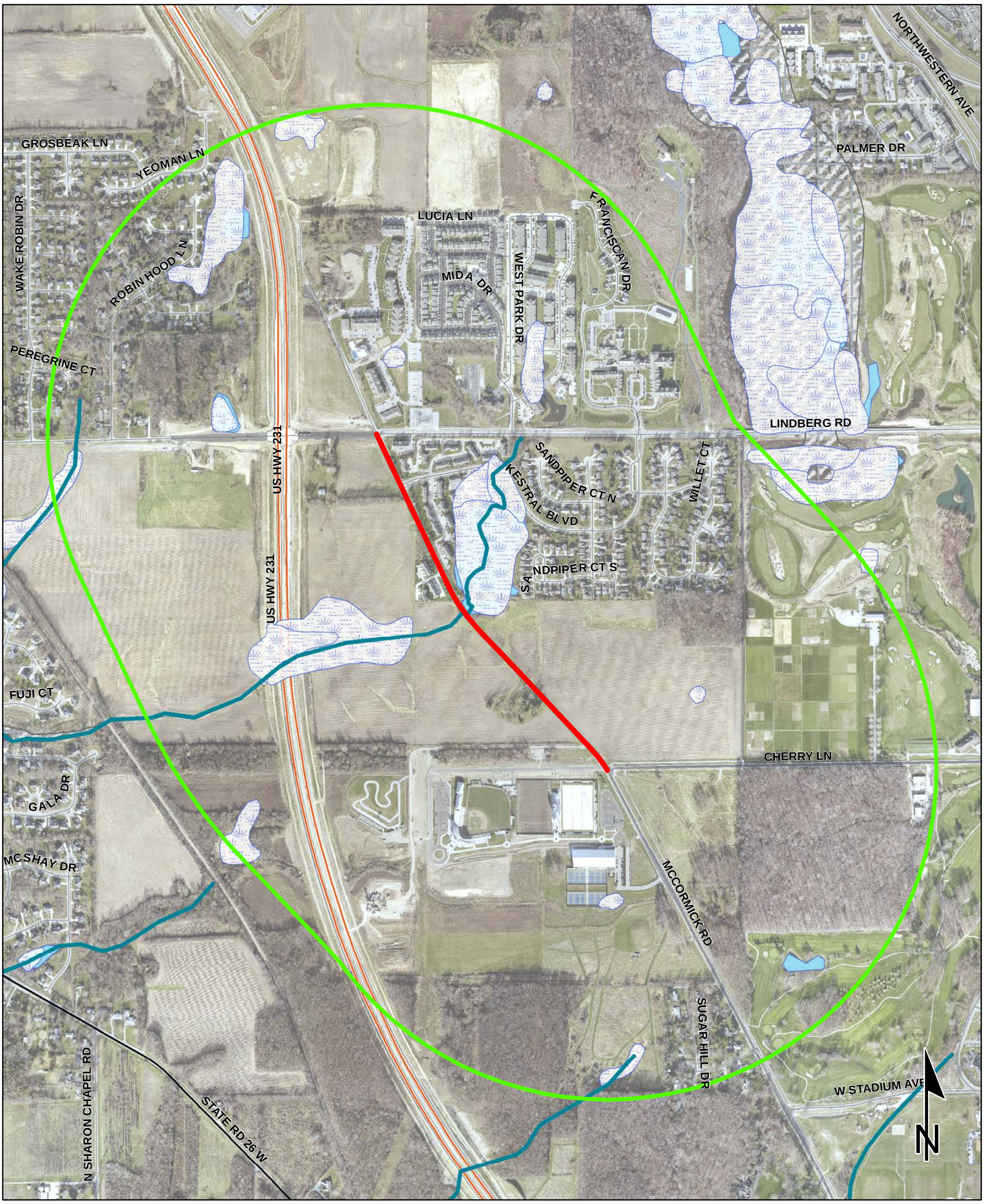
Tippecanoe County, Indiana



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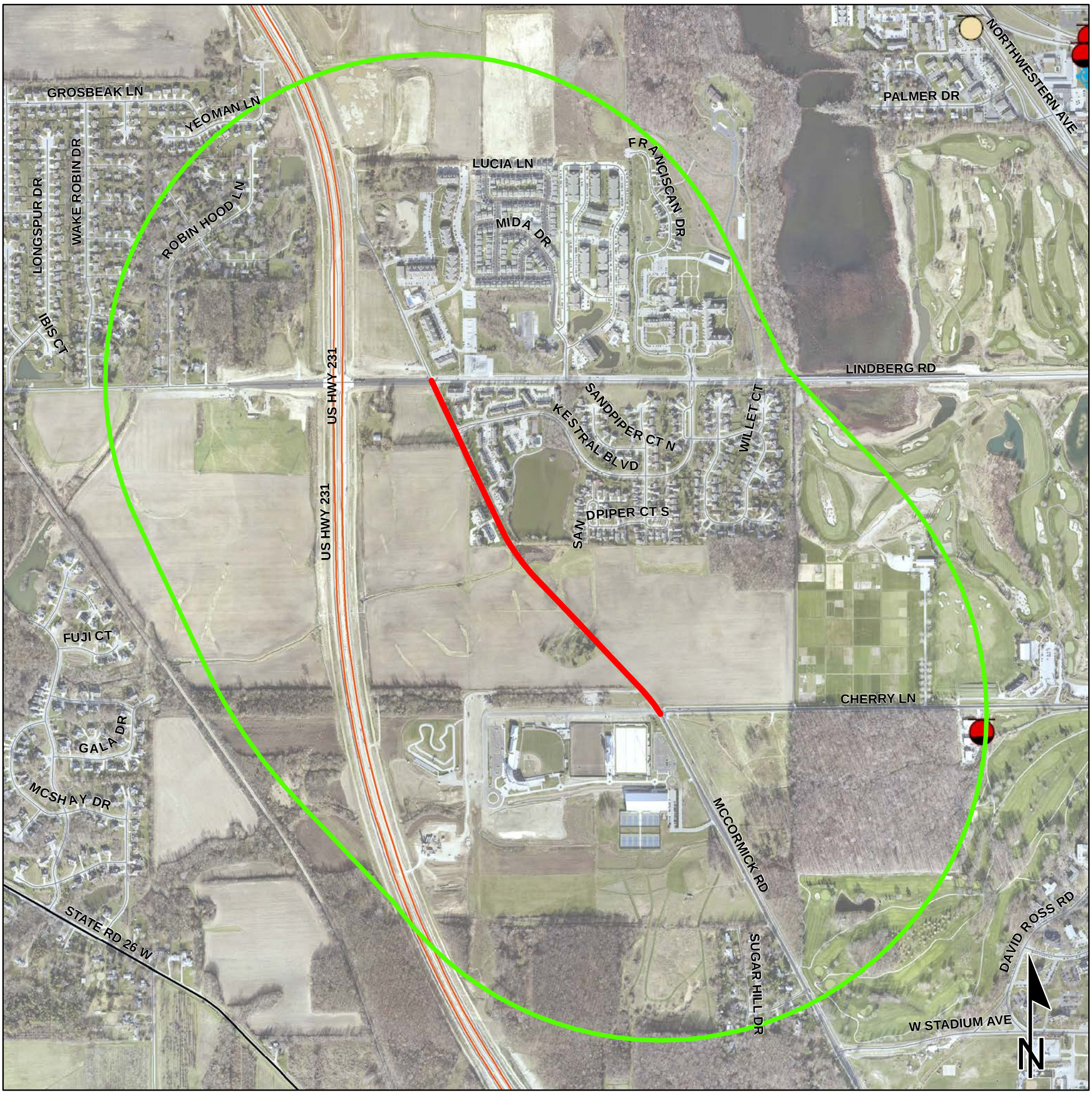
Water Resources Legend

- NWI - Point
- Canal Structure - Historic
- NWI- Line
- Stream - Impaired
- NPS NRI listed
- River
- Canal Route - Historic
- Wetlands
- Lake - Impaired
- Lake
- Floodplain - DFIRM
- County Boundary
- Project Area
- Half Mile Radius
- Interstate
- State Route
- US Route
- Local Road

HAZMAT CONCERNS
McCormick Road
Des. No. TBD, Rural to Urban Conversion
Tippecanoe County, Indiana



HazMat Concerns Legend

- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Construction/Demolition Site
- Leaking Underground Storage Tank
- Manufactured Gas Plant
- NPDES Facilites
- NPDES Pipe Locations
- Open Dump Waste Site
- RCRA Generator/TSD
- Restricted Waste Site
- Septage Waste Site
- Solid Waste Landfill
- State Cleanup Site
- Superfund
- Tire Waste Site
- Underground Storage Tank
- Unspecified Spill
- Voluntary Remediation Program
- Waste Transfer Station
- Institutional Controls
- County Boundary
- Project Area
- Half Mile Radius
- Interstate
- State Route
- US Route
- Local Road

0.15 0.075 0 0.15 Miles

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Indiana County Endangered, Threatened and Rare Species List

County: Tippecanoe

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma torulosa rangiana	Northern Riffleshell	LE	SE	G2T2	SX
Epioblasma torulosa torulosa	Tubercled Blossom	LE	SE	G2TX	SX
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Fusconaia subrotunda	Longsolid		SE	G3	SX
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Lampsilis ovata	Pocketbook			G5	S2
Leptodea leptodon	Scaleshell	LE	SX	G1G2	SX
Ligumia recta	Black Sandshell			G5	S2
Obovaria retusa	Ring Pink	LE	SX	G1	SX
Obovaria subrotunda	Round Hickorynut		SSC	G4	S1
Plethobasus cicatricosus	White Wartyback	LE	SE	G1	SX
Plethobasus cyphyus	Sheepnose	LE	SE	G3	S1
Pleurobema clava	Clubshell	LE	SE	G2	S1
Pleurobema cordatum	Ohio Pigtoe		SSC	G4	S2
Pleurobema plenum	Rough Pigtoe	LE	SE	G1	S1
Pleurobema rubrum	Pyramid Pigtoe		SE	G2G3	SX
Potamilus capax	Fat Pocketbook	LE	SE	G1G2	S1
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	C	SE	G3G4T3	S1
Simpsonaias ambigua	Salamander Mussel		SSC	G3	S2
Toxolasma lividus	Purple Lilliput		SSC	G3	S2
Villosa fabalis	Rayed Bean	LE	SSC	G2	S1
Insect: Coleoptera (Beetles)					
Lissobiops serpentinus	A Rove Beetle		SE	GNR	S1
Insect: Ephemeroptera (Mayflies)					
Paracloeodes minutus	A Small Minnow Mayfly		SR	G5	S2
Insect: Lepidoptera (Butterflies & Moths)					
Speyeria idalia	Regal Fritillary		SE	G3	S1
Insect: Mecoptera					
Merope tuber	Earwig Scorpionfly		SE	G3G5	S1
Insect: Odonata (Dragonflies & Damselflies)					
Erpetogomphus designatus	Eastern Ringtail		ST	G5	S2
Somatochlora tenebrosa	Clamp-tipped Emerald		SR	G5	S2S3
Fish					
Etheostoma tippecanoe	Tippecanoe Darter		SSC	G3G4	S3
Amphibian					
Hemidactylium scutatum	Four-toed Salamander		SSC	G5	S2

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

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County: Tippecanoe

Species Name	Common Name	FED	STATE	GRANK	SRANK
Reptile					
Clemmys guttata	Spotted Turtle		SE	G5	S2
Emydoidea blandingii	Blanding's Turtle		SE	G4	S2
Liochlorophis vernalis	Smooth Green Snake		SE	G5	S2
Terrapene carolina carolina	Eastern Box Turtle		SSC	G5T5	S3
Terrapene ornata ornata	Ornate Box Turtle		SE	G5T5	S1
Bird					
Aimophila aestivalis	Bachman's Sparrow			G3	SXB
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B
Ardea herodias	Great Blue Heron			G5	S4B
Asio flammeus	Short-eared Owl		SE	G5	S2
Asio otus	Long-eared Owl			G5	S2
Aythya collaris	Ring-necked Duck			G5	SHB
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Botaurus lentiginosus	American Bittern		SE	G4	S2B
Buteo platypterus	Broad-winged Hawk	No Status	SSC	G5	S3B
Carduelis pinus	Pine Siskin			G5	S3N
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Dendroica cerulea	Cerulean Warbler		SE	G4	S3B
Falco peregrinus	Peregrine Falcon	No Status	SE	G4	S2B
Grus canadensis	Sandhill Crane	No Status	SSC	G5	S2B,S1N
Haliaeetus leucocephalus	Bald Eagle	LT,PDL	SSC	G5	S2
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Lanius ludovicianus	Loggerhead Shrike	No Status	SE	G4	S3B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Rallus elegans	King Rail		SE	G4	S1B
Sturnella neglecta	Western Meadowlark		SSC	G5	S2B
Tyto alba	Barn Owl		SE	G5	S2
Mammal					
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat		SSC	G3G4	SH
Geomys bursarius	Plains Pocket Gopher		SSC	G5	S2
Lasiurus borealis	Eastern Red Bat		SSC	G5	S4
Mustela nivalis	Least Weasel		SSC	G5	S2?
Myotis septentrionalis	Northern Myotis		SSC	G4	S3
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Nycticeius humeralis	Evening Bat		SE	G5	S1
Reithrodontomys megalotis	Western Harvest Mouse			G5	S2
Spermophilus franklinii	Franklin's Ground Squirrel		SE	G5	S2
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					

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County: Tippecanoe

Species Name	Common Name	FED	STATE	GRANK	SRANK
Androsace occidentalis	Western Rockjasmine		ST	G5	S2
Arenaria patula	Pitcher's Stitchwort		SE	G4	S1
Aster oblongifolius	Aromatic Aster		SR	G5	S2
Astragalus tennesseensis	Tennessee Milk-vetch		SRE	G3	SX
Bacopa rotundifolia	Roundleaf Water-hyssop		ST	G5	S1
Besseya bullii	Kitten Tails		SE	G3	S1
Botrychium matricariifolium	Chamomile Grape-fern		SR	G5	S2
Botrychium simplex	Least Grape-fern		SE	G5	S1
Camassia angusta	Wild Hyacinth		SE	G5?Q	S1
Carex flava	Yellow Sedge		ST	G5	S2
Carex gravida	Heavy Sedge		SE	G5	S1
Chelone obliqua var. speciosa	Rose Turtlehead		WL	G4T3	S3
Chrysopsis villosa	Hairy Golden-aster		ST	G5	S2
Circaea alpina	Small Enchanter's Nightshade		SX	G5	SX
Cirsium hillii	Hill's Thistle		SE	G3	S1
Coeloglossum viride var. virescens	Long-bract Green Orchis		ST	G5T5	S2
Crataegus pedicellata	Scarlet Hawthorn		ST	G5	S2
Cypripedium candidum	Small White Lady's-slipper		WL	G4	S2
Eriophorum angustifolium	Narrow-leaved Cotton-grass		SR	G5	S2
Erysimum capitatum	Prairie-rocket Wallflower		ST	G5	S2
Euphorbia obtusata	Bluntleaf Spurge		SE	G5	S1
Gentiana alba	Yellow Gentian		SR	G4	S2
Houstonia nigricans	Narrowleaf Summer Bluets		SR	G5	S2
Linum sulcatum	Grooved Yellow Flax		SR	G5	S2
Lithospermum incisum	Narrow-leaved Puccoon		SE	G5	S1
Melampyrum lineare	American Cow-wheat		SR	G5	S2
Muhlenbergia cuspidata	Plains Muhlenbergia		SE	G4	S1
Napaea dioica	Glade Mallow		SR	G4	S2
Onosmodium hispidissimum	Shaggy False-gromwell		SE	G4	S1
Orobanche riparia	Bottomland Broomrape		SE	G5	S2
Oryzopsis racemosa	Black-fruit Mountain-ricegrass		SR	G5	S2
Panicum rigidulum var. pubescens	Long-leaved Panic-grass		SX	G5T5?	SX
Plantago cordata	Heart-leaved Plantain		SE	G4	S1
Poa paludigena	Bog Bluegrass		WL	G3	S3
Psoralea tenuiflora	Few-flowered Scurf-pea		SX	G5	SX
Sanguisorba canadensis	Canada Burnet		SE	G5	S1
Selaginella apoda	Meadow Spike-moss		WL	G5	S1
Silene regia	Royal Catchfly		ST	G3	S2
Trichostema dichotomum	Forked Bluecurl		SR	G5	S2
Viola pedatifida	Prairie Violet		ST	G5	S2

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Indiana County Endangered, Threatened and Rare Species List

County: Tippecanoe

Species Name	Common Name	FED	STATE	GRANK	SRANK
High Quality Natural Community					
Barrens - gravel	Gravel Slope Barrens		SG	G3	S1
Barrens - sand	Sand Barrens		SG	G3	S2
Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	G4	S4
Forest - upland mesic	Mesic Upland Forest		SG	G3?	S3
Lake - lake	Lake		SG	GNR	S2
Prairie - dry-mesic	Dry-mesic Prairie		SG	G3	S2
Wetland - fen	Fen		SG	G3	S3
Wetland - marsh	Marsh		SG	GU	S4
Wetland - seep circumneutral	Circumneutral Seep		SG	GU	S1
Other Significant Feature					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

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